IN THE CLAIMS:

Please CANCEL claim 9 without prejudice or disclaimer, AMEND claims 1, 21 and 22 and ADD claims 23 and 24 as indicated below:

1. (CURRENTLY AMENDED) A flexible medium transport simulation apparatus which simulates transport of a sheet-like flexible medium in a transport mechanism and three-dimensionally displays the simulated transport, the apparatus comprising:

a flexible medium setting section for setting the length and the width of said flexible medium as dimensional information, the length being a measurement in a transport direction in which the flexible medium is transported and the width being a measurement in a widthwise direction which is perpendicular to the transport direction with respect to a plane on which said flexible medium is transported;

a transport path setting section for setting a three-dimensional transport path covering a widthwise deviation of said flexible medium, along which path said flexible medium is transported in said transport mechanism;

a travel amount information input section for inputting travel amount information about an amount of travel of said flexible medium;

a simulation section for simulating the transport of said flexible medium carried out by said transport mechanism, by using a three-dimensional mechanism model of said transport mechanism being constructed inside said simulation section~~;~~, wherein

said simulation section handles said flexible medium as a three-dimensional model, the model being constituted by interconnecting a plurality of strip-shaped members so as to be rotatable about an axis parallel to said widthwise direction,

~~a display for displaying the transport of said flexible medium; and~~

~~a display control section for controlling said display so as to display a result of the simulation performed by said simulation section,~~

said simulation section comprising:

a position/posture computation section which computes a three-dimensional transport position of said flexible medium along the three-dimensional transport path, and also computes a two-dimensional posture of said flexible medium in a plane orthogonal to the widthwise direction, on the basis of the dimensional information, which is set by said flexible medium setting section, of the three-dimensional transport path, which is set by said transport

path setting section, ~~and~~ of the travel amount information, which is input by said travel amount information input section, and of said three-dimensional model; and

a three-dimensional image preparation section which prepares a three-dimensional image of said flexible medium on the basis of the three-dimensional transport position or the two-dimensional posture, which is computed by said position/posture computation section, ~~and~~ of the dimensional information, which is set by said flexible medium setting section, and of said three-dimensional model, and outputs the three-dimensional image as the result of the simulation~~.~~;

a display for displaying the transport of said flexible medium; and

a display control section for controlling said display so as to display a result of the simulation performed by said simulation section.

2. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 1, wherein

said travel amount information input section is a pointing device adapted to be operated by a user, and wherein

a three-dimensional image of said flexible medium appearing on said display is operated by use of said pointing device, with the result that the amount of operation of the three-dimensional image is input to said simulation section as the travel amount information.

3. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 1, wherein

said travel amount information input section is a pointing device adapted to be operated by a user, and wherein

an image, appearing on said display, of a component of said transport mechanism, which component acts on said flexible medium, is operated by use of said pointing device, with the result that the amount of operation of the component image is input to said simulation section as the travel amount information.

4. (ORIGINAL) A flexible medium transport simulation according to claim 1, wherein

said travel amount information input section is a control program execution section which executes a control program for controlling the operation of said transport mechanism and

computes an amount of control of a component of said transport mechanism, which component acts on said flexible medium, and wherein

the amount of control computed by said control program execution section is input to said simulation section as the travel amount information.

5. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 3, further comprising a travel ratio setting section which sets a travel ratio; i.e., a ratio of a travel amount of said flexible medium to a rotation amount of a roller, in a case where said transport mechanism includes a roller which comes into contact with and acts on said flexible medium, and wherein said simulation section simulates transport of said flexible medium on the basis of the travel ratio set by said travel ratio setting section.

6. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 4, further comprising a travel ratio setting section which sets a travel ratio; i.e., a ratio of a travel amount of said flexible medium to a rotation amount of a roller, in a case where said transport mechanism includes a roller which comes into contact with and acts on said flexible medium, and wherein said simulation section simulates transport of said flexible medium on the basis of the travel ratio set by said travel ratio setting section.

7. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 5, wherein said travel ratio setting section randomly sets the travel ratio in accordance with a predetermined statistical distribution.

8. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 6, wherein said travel ratio setting section randomly sets the travel ratio in accordance with a predetermined statistical distribution.

9. (CANCELED)

10. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 1, wherein said transport path setting section sets the three-dimensional transport path through use of circular arcs and straight lines.

11. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 1, wherein said position/posture computation section approximately computes the two-dimensional posture through use of circular arcs and straight lines.

12. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 1, wherein said travel amount information input section inputs the travel amount information while a position of a load center of the force applied for putting said flexible medium in motion is made stationary on said flexible medium, and said position/posture computation section computes the two-dimensional posture based on the last-named travel amount information on the position of the load center on said flexible medium.

13. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 12, wherein, in a case where said flexible medium is a notebook-shaped medium consisting of a plurality of leaves, the position of the load center is limited on an externally-exposed leaf of said notebook-shaped medium.

14. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 1, wherein said travel amount information input section inputs the travel amount information such that a position of a load center of the force applied for putting said flexible medium in motion is shifted on said flexible medium, and said position/posture computation section computes the two-dimensional posture based on the last-named travel amount information while the position of the load center on the flexible medium is perceived.

15. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 13, wherein, in a case where said flexible medium is a notebook-shaped medium consisting of a plurality of leaves, page numbers are assigned to respective leaves, and said position/posture computation section perceives a leaf, on which the load center is located, on the basis of the page number and further perceives the position of the load center on the leaf.

16. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 1, wherein said position/posture computation section computes the three-dimensional transport

position, through use of a value which is obtained by adding a predetermined error amount to the length of a predetermined portion of the three-dimensional transport path, which is set by the transport path setting section, to simulate deviation of said flexible medium being transported through the predetermined portion.

17. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 16, further comprising an error amount setting section for randomly setting the predetermined error amount in accordance with a predetermined statistical distribution.

18. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 1, wherein, when said flexible medium arrives at a predetermined position, said position/posture computation section fixes the three-dimensional transport position to the predetermined position or computes the three-dimensional transport position such that a transport speed of said flexible medium is decreased, to simulate the occurrence of troubles in transport of said flexible medium at the predetermined position.

19. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 18, further comprising a position setting section which randomly sets said predetermined position in accordance with a predetermined statistical distribution.

20. (ORIGINAL) A flexible medium transport simulation apparatus according to claim 1, wherein said flexible medium setting section further sets the thickness of said flexible medium as the dimensional information about said flexible medium, and said simulation section simulates transport of said flexible medium in consideration of the thickness set by said flexible medium setting section.

21. (CURRENTLY AMENDED) A method of simulating transport of a sheet-like flexible medium in a transport mechanism and three-dimensionally displaying the simulated transport, the method comprising:

a flexible medium setting step for setting the length and the width of said flexible medium as dimensional information, the length being a measurement in a transport direction in which the flexible medium is transported and the width being a measurement in a widthwise

direction which is perpendicular to the transport direction with respect to a plane on which said flexible medium is transported;

a transport path setting step for setting a three-dimensional transport path covering a widthwise deviation of said flexible medium, along which path said flexible medium is transported in said transport mechanism;

a travel amount information input step for inputting travel amount information about an amount of travel of said flexible medium;

a simulation step for simulating the transport of said flexible medium carried out by said transport mechanism, with use of a three-dimensional mechanism model of said transport mechanism~~; and~~, wherein

~~a display step for displaying the transport of said flexible medium, simulated in said simulation step, on a display,~~

said simulation step, handling said flexible medium as a three-dimensional model, the model being constituted by interconnecting a plurality of strip-shaped members so as to be rotatable about an axis parallel to said widthwise direction, includes:

a position/posture computation step for computing a three-dimensional transport position of said flexible medium along the three-dimensional transport path, and also computes a two-dimensional posture of said flexible medium in a plane orthogonal to the widthwise direction, on the basis of the dimensional information, which is set in said flexible medium setting step, of the three-dimensional transport path, which is set in said transport path setting step, ~~and~~ of the travel amount information, which is input in said travel amount information input step and of the three-dimensional model; and

a three-dimensional image preparation step for preparing a three-dimensional image of said flexible medium on the basis of the three-dimensional transport position or the two-dimensional posture, which is computed in said position/posture computation step, ~~and~~ of the dimensional information, which is set in said flexible medium setting step, and of the three-dimensional model and outputting the three-dimensional image as the result of the simulation~~.~~; and

a display step for displaying the transport of said flexible medium, simulated in said simulation step, on a display.

22. (CURRENTLY AMENDED) A computer-readable recording medium which stores a flexible medium transport simulation program for instructing a computer to execute functions of simulating transport of a sheet-like flexible medium in a transport mechanism and of three-dimensionally displaying the simulated transport, wherein

said flexible medium transport simulation program instructs the computer to function as:

a transport path setting section for setting a three-dimensional transport path covering a widthwise deviation of said flexible medium, along which path said flexible medium is transported in said transport mechanism;

a travel amount information input section for inputting travel amount information about an amount of travel, starting from a predetermined position, of said flexible medium;

a simulation section for simulating the transport of said flexible medium carried out by said transport mechanism, by using a three-dimensional mechanism model of said transport mechanism being constructed inside said simulation section; and

a display control section for controlling a display so as to display a result of the simulation performed by said simulation section,

the computer, when it functions as the simulation section, being instructed to handle said flexible medium as a three-dimensional model, the model being constituted by interconnecting a plurality of strip-shaped members so as to be rotatable about an axis parallel to said widthwise direction; and

the computer, when it functions as the simulation section, being instructed to function as:

a position/posture computation section which computes a three-dimensional transport position of said flexible medium along the three-dimensional transport path, and also computes a two-dimensional posture of said flexible medium in a plane orthogonal to the widthwise direction, on the basis of dimensional information set in advance, of the three-dimensional transport path, which is set by said transport path setting section, ~~and~~ of the travel amount information, which is input by said travel amount information input section and of the three-dimensional model; and

a three-dimensional image preparation section which prepares a three-dimensional image of said flexible medium on the basis of the three-dimensional transport position or the two-dimensional posture, which is computed by said position/posture computation section, ~~and~~ of the dimensional information, and of the three-dimensional model and outputs the three-dimensional image as the result of the simulation.

23. (NEW) An apparatus, comprising:

a flexible medium setting section setting a length and a width of a flexible medium as dimensional information, the length being a measurement in a transport direction in which the flexible medium is transported by a transport mechanism and the width being a measurement in a widthwise direction which is perpendicular to the transport direction with respect to a plane on which said flexible medium is transported; and

a simulation section simulating the transport of said flexible medium by the transport mechanism, by using a three-dimensional mechanism model of said transport mechanism being constructed inside said simulation section, wherein

said simulation section handles said flexible medium as a three-dimensional model, the model being constituted by interconnecting a plurality of strip-shaped members so as to be rotatable about an axis parallel to said widthwise direction.

24. (NEW) An apparatus, comprising:

means for setting the length and the width of a flexible medium as dimensional information, the length being a measurement in a transport direction in which the flexible medium is transported by a transport mechanism and the width being a measurement in a widthwise direction which is perpendicular to the transport direction with respect to a plane on which said flexible medium is transported; and

means for simulating transport of said flexible medium by the transport mechanism, by using a three-dimensional mechanism model of said transport mechanism being constructed inside a simulation section, wherein

said simulation section handles said flexible medium as a three-dimensional model, the model being constituted by interconnecting a plurality of strip-shaped members so as to be rotatable about an axis parallel to said widthwise direction.